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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/826,538 | 04/04/2001 | Michael G. West | 7293-13 | 5317 |

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MARGER JOHNSON & McCOLLOM, P.C.
1030 S.W. Morrison Street
Portland, OR 97205

EXAMINER

NGUYEN, HAU H

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2676

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,538

Applicant(s)

WEST ET AL.

Examiner

Hau H Nguyen

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-12 is/are allowed.
- 6) ☒ Claim(s) 2-4, 13-15, 25-28 is/are rejected.
- 7) ☒ Claim(s) 16, 18-23 and 29-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2676

Allowable Subject Matter

1. Claims 5-12 are allowed.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowable subject matter:

The prior art taken singly or in combination does not teach or suggest, a system to align image data among other things, comprising a compare circuit, a register circuit, a latch circuit, and multiplexer circuit.

The closest prior art, Lau et al. (U.S. Patent No. 6,578,092) teaches a method of receiving data transmitted from serial data channel, and converting to parallel data, and aligning data.

However, reference Lau et al. does not teach a compare circuit, a register circuit, a latch circuit, and multiplexer circuit as claimed.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17 and 24 recite the limitation "the reload read pointer" (claim 17, line 16, claim 24, line 15). There is insufficient antecedent basis for this limitation in the claim.

Response to Amendment

5. Applicant's arguments with respect to claims 2-4, 14-15, 25-28 have been considered but are moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 102

Art Unit: 2676

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 2-4, 14-15, 25-28 rejected under 35 U.S.C. 102(e) as being anticipated by Lau et al. (U.S. Patent No. 6,578,092).

Referring to claims 2-4, as shown in Fig. 3, Lau et al. teach the communication network wherein, each quad-transceiver of a switch card (306 and 309) receives four streams of serial data from different ingress line cards and converts these streams of serial data into four streams 340 of parallel data. Cells of (parallel) data transmitted out to a destination line card 310 via different channels may arrive at the destination line card at different times--i.e. the cells are misaligned (skew). Fig. 4 illustrates a receiver circuit 402 coupled to an alignment control circuit 404 of line card ASIC 422. Receiver circuit 402 is typically placed on a quad-transceiver of a line card. Each stream of serial data arriving at receiver circuit 402 has at its beginning part a character (hereinafter referred to as "SYNC character") indicating that valid data is arriving on a next clock (serial reference clock) (col. 4, lines 19-67, and col. 5, lines 1-7). Figs. 5-8 illustrate storing parallel data in FIFO buffers 410-416 (queue circuit) based on a clock (pixel clock), and an alignment control circuit 404 of FIG. 4 may assert a read enable signal (generating a parallel reference clock) to the FIFO buffers to cause reading of data from all four FIFO buffers at a substantially same time (col. 5, lines 8-41).

Art Unit: 2676

In regard to claims 14-15 and 25-26, as cited above, Lau et al. teach a method of aligning parallel data received from a plurality of parallel data channels having skew relative to other input channels (destination line card 310, for example) comprising a plurality of FIFO buffers. As shown in Fig. 9, Lau et al. further teach a global signal `Frame_Alignment_Tick_In` is driven via line 923 to the FIFO buffers 920 by the alignment control circuit (not shown) to read data from the FIFO buffers once the last FIFO buffer receives at least one cell of data. The `Frame_Alignment_Tick_In` signal (a parallel reference clock) tells the FIFO buffers when to start driving data out. FIFO buffer 920 is controlled by two pointers--a read pointer and a write pointer. The SYNC character indicates that valid data is arriving on the next clock. A read pointer is initialized to zero when `Frame_Alignment_Tick_In` is asserted so that data may be read out from the four FIFO buffers at a substantially same time.

In regard to claim 27, as cited above, Lau et al. teach storing data responsive to a pixel clock.

Referring to claim 28, as cited above, Lau et al. teach each stream of serial data arriving at receiver circuit 402 has at its beginning part a character (hereinafter referred to as "SYNC character") indicating that valid data is arriving on a next clock, and thus implying scanning for a code (i.e. the SYNC character).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2676

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al. (U.S. Patent No. 6,578,092) in view of Digital Visual Interface (DVI) Version 1.0.

Referring to claim 13, as applied to claim 1, Lau et al. teach all the limitations of claim 13, except that the decoder meeting the digital visual interface specification version 1.0.

However, Digital Visual Interface Version 1.0 is admitted as prior art by Applicant.

Therefore, it would have been obvious to one skilled in the art to utilize the decoder as cited in Digital Visual Interface Version 1.0 in order to obtain a lossless digital data transmission (page 6).

10. Claims 16, 18-23, 29-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2676

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

H. Nguyen

06/10/2204



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600